REMARKS

New claims 26-31 have been added. Such claims have descriptive basis in appealed claims 9-10 and 19-20, but have been limited to the starch consisting essentially of the specified sago starch.

Claims 9-15 and 19-25 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Eden, et al (US 4,874,628). Applicants traverse.

The application claims a composition comprising a sago starch with a water fluidity (WF) of from about 40 to 80, and water and a method of increasing gel strength by using such sago fluidity starch. Sago starch which has been converted to the claimed WF is patentable in that it unexpectedly gels to form a strong gel, compared to other bases which have been similarly converted. See Figures 1 and 2 of the present application which compare gel strength of fluidity starches of different bases at a variety of WF values. Sago starch which has been converted to the claimed WF is also patentable in that it gels more quickly compared to other bases which have been similarly converted. See for example figures 3-5 of the present application which compare gelling time, as indicated by an increase in viscosity, of fluidity starches of different bases at a variety of WF values.

Eden discloses a process of making gum confections by using high amylose starch alone or in combination with up to about 9 parts of a converted (fluidity) starch, a sweetener and water (Eden, col. 2, lines 51-60). The converted starches used in combination with the high amylose starches are chosen from starch bases other than high amylose starches, such as corn, potato, sweet potato, rice, sago, tapioca, waxy maize, sorghum, and the like (Eden, col. 6, lines 45-49). Acid hydrolyzed or oxidized corn, sorghum, and wheat starches are preferably used, with acid-hydrolyzed corn starch being the most preferred (Eden, col. 6, lines 51-56). Eden has ten examples, many with numerous compositions disclosed. However, none use a fluidity sago starch.

Thus, it is clear that not only does Eden not recognize that sago is superior to the other sources, but Eden teaches away from sago by stating that corn, sorghum and wheat are preferable, with corn the most preferable.

Applicants would like to enter the Hanchett declaration under 37 C.F.R. §1. 132 to support this contention of superiority in view of the Board's statement that "it is well settled that the burden of establishing the significance of data in the record with respect to unexpected results rests with appellants, which burden is not carried by mere arguments of counsel."

In his declaration, Mr. Hanchett explains that sago has an unexpectedly superior gel strength, up to more than eight times stronger than the fluidity corn of Eden, and a faster gelling time, about 10 minutes faster than the fluidity corn of Eden.

Mr. Hanchett concludes that "there is clear proof that the fluidity sago starches of the present invention are superior to other fluidity starches, particularly the fluidity corn starch of Eden. The superiority lies in the unexpected high gel strength and the fast gelling time. Such high gel strength and fast gelling time is desirable in many applications, including the jelly gum confections taught by Eden."

As detailed above, Eden not only does not recognize the superiority of sago starch, but he teaches away from using sago starch and does not actually try sago starch. Thus, at best, Eden gives only general guidance and is not at all specific as to the particular form of the claimed invention. Eden discloses numerous compounds. First he discloses starch in general, listing eight specific starches. Second, he implies that any degree of conversion may be used. A disclosure of such a multitude of compounds would not render obvious a claim limited to simply a few, particularly when such disclosure indicates a preference leading away from the claimed compounds. Third, it is clear from the Hanchett declaration that the fluidity sago of the present invention forms superior gels and gels faster than the preferred fluidity corn of Eden. Thus, it is clear that the invention is unobvious over Eden.

New claims 28-31 are further limited in that they claim the starch consists essentially of the fluidity sago starch. In Examples VII and VIIII of Eden, it is shown that the high amylose corn starch gives the gelling property to the confectionary dispersion, not the unconverted corn starch. In Example VII, it is shown that the pregelatinized high amylose corn starch confection had a gel strength of 361 g/mc^2. In contrast, Table V of Example VIII shows that a 65 WF corn starch confection had a gel strength of only 47 g/cm^2. The importance of the high amylose corn starch in providing the gelling property is also stated in the background of Eden (col. 2, lines 35-36). Thus, it is clear that Eden teaches that the high amylose corn starch is responsible for the gel strength and indicates that a 65 WF corn starch is inadequate to provide the required gel strength. In contrast, the sago starch of the present invention does provide the required gel strength with the use of a high amylose corn starch. Thus, claims 28-31 are further patentable in that they exclude the use of a high amylose corn starch, which is shown by Eden to be essential to gel strength.

Claims 9, 16, 17, 19, 26 and 27 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Eden, et al (US 4,874,628) in view of Jeffcoat, et al. (US 6,488,980), Park (US 4,784,871), or Yuan (US 6,017,388). The addition of Jeffcoat, Park or Yuan does not remedy the deficiencies of Eden.

Jeffcoat discloses stabilized or stabilized crosslinked waxy potato starches as thickeners for food compositions (Jeffcoat, abstract). Jeffcoat does not teach sago starches, much less sago starches with a water fluidity of about 40-80. Further, Jeffcoat teaches away from adding his starches to increase the gel strength, stating that the configuration of amylopectin starches (those of his invention) "discourages reassociation so that gelling does not readily occur." (Jeffcoat, col. 1, lines 39-41).

Park discloses a method of making a calcium fortified yogurt in which stabilizers and thickeners such as starch may be added (Park, col. 2, lines 20-22). Starch may also be added as past of the fruit flavoring (Park, col.

2, lines 54-56). Park neither discloses that the starch may be sago, nor that it may have a fluidity in the range of about 40-80. Further, Park never mentions gelling.

Yuan discloses heating a starch in the presence of an emulsifer to form a complex which can be used in food products. The starch used can be native or debranched and "debranched or partially hydrolyzed amylomaize can be used, as well as common cornstarch, potato, tapioca, wheat, smooth pea, rice, sago, barley and oat starches." (Yuan, col. 3, lines 36-39 and 53-56). Yuan mentions sago as one of many base starches which may be used and never provides a range of water fluidities, in fact stating that native (unconverted) starch is preferred when making a gelled composition (Yuan, col. 2, lines 27-29). Further, although Yuan teaches that the starch-emulsifier composition may be in the form of a gel, Yuan specifically teaches away from the using the fluidity sago starch in that he states the use of an unconverted starch produces a better gel than using a hydrolyzed starch (Yuan, col. 2, lines 27-29).

Applicant submits the rejections have been overcome in view of the above arguments, that the Application is now in condition for allowance and respectfully requests early notice to that effect.

Respectfully submitted,

Karen Kaiser

National Starch and Chemical Company
P.O. Box 6500
Bridgewater, NJ 08807-0500
(908) 575-6152

Karen G. Kaiser
Attorney for Applicants
Reg. No. 33,506

Dated: 21 April 06

68863